REMARKS:

The Examiner has objected to the Drawings because of inconsistencies with regard to the element numbers. In order to correct these inconsistencies, the Applicant has amended the specification to correct the element numbers referred to in the drawings, the drawings themselves having been correct as filed. In addition, the Examiner has objected to the reference in the first paragraph, line 4, page one of the specification, to a related application which was listed by docket number. Accordingly, the Specification has been amended to list the patent number of the related application.

The Examiner has also objected informalities in claim 40. The Applicant has amended claim 40 accordingly. In addition, the Examiner has rejected claims 37 and 41 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. The Applicant has amended claims 37 and 41 to ensure that it is clear which elements are being referred to and to ensure that antecedent basis is provided for the elements referred to.

Claim Rejections – 35 USC Section 103:

The Examiner has rejected claims 24-26 and 37-39 as being obvious over US 5,635,835 (Mouchot) in view of US 6,381,105 (Huai), 6,341,053 and 6,590,803 (Saito).

Claim 24 recites a method for constructing a spin valve stack that includes depositing first and second spin valve stacks and a longitudinal bias between the first and second spin valve stacks. Upon further inspection of Mouchot it can be seen that Mouchot does not teach any longitudinal bias stack at all, either located between first and second spin valve stacks or anywhere else.

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Mouchot teaches a spin valve sensor having a pinned (or blocked) magnetic layer disposed between first and second magnetic free layers. As taught by Mouchot, this middle layer can be pinned by exchange coupling with an antiferromagnetic layer, and has a magnetization that is pinned in a transverse direction (perpendicular to the ABS). It would be impossible for this middle layer to act as a longitudinal bias layer, since its magnetization is pinned in a transverse direction, not longitudinally. There is no teaching in Mouchot that would suggest, even in combination with the other references) that a spin valve could be constructed by depositing a longitudinal bias stack between first and second spin valve stacks. Since non of the references, alone or in combination, teach a method as recited in claim 24, the Applicant respectfully asserts that claim 24 is patentable over the prior art. Furthermore, claims 25-26 and 36-41 which depend from allowable claim 24 and add further limitation thereto, are also patentable over the prior art.

The Examiner has also provisionally rejected claims 24-26 based on obviousness-type double patenting over claims 1-3 of copending Application No. 10/981,926. The copending application does not disclose depositing first and second spin valve stacks with a longitudinal bias stack disposed between the spin valve stacks. The copending application discloses a dual tunnel junction sensor, which has a fundamentally different structure and operation. It would not have been obvious upon reading the copending application, that a method according to claims 24-26 of the present invention could be used to construct a spin valve sensor.

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The applicant sincerely believes that the present claims as amended are in condition for allowance. Therefore, a notice of allowance is respectfully requested.

For payment of any fees due in connection with the filing of this paper, the Commissioner is authorized to charge such fees to Deposit Account **50-2587 order no. (SJO920000163US2).**

Respectfully submitted,

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